### **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.





# SPRING 1918

### PEDIGREED SEED COMPANY

OPERATING THE PEDIGREED SEED BREEDING AND EXPERIMENTAL FARMS

DAVID R. COKER. PRESIDENT

HARTSVILLE. SOUTH CAROLINA





# COKER'S PEDIGREED SEEDS AND OTHER FINE SEEDS OF SOUTHERN STAPLE FARM CROPS

SPRING 1918

PEDIGREED SEED COMPANY, HARTSVILLE, S. C.

DAVID R. COKER, PRESIDENT

OPERATING THE PEDIGREED SEED BREEDING AND EXPERIMENTAL FARMS

# The Basis of Successful Crops Our Catalogue

Both last year and this year we have been confronted with the problem, Shall we issue a catalogue? Last year we had practically all the material ready to go to press in November, but by that time had sold out the bulk of our seed. A very similar condition confronts us this year. We have, however, determined to print the catalogue anyhow, marking those varieties "Sold out" which have been completely disposed of. The farmer who wishes to use our seed should go carefully over our catalogue and if the varieties he prefers are sold out he should make a memorandum to write to us next October to book his order.

Those receiving this catalogue should read it from cover to cover, for it is not merely an advertisement of a business, but contains the results of much scientific experimental work, which will benefit any Southern farmer.

We are greatly indebted to a long list of customers for hearty support and encouragement and one of our chiefest regrets is that we cannot increase the facilities of our business rapidly enough to supply the Southern demand for pure pedigreed seed, and that every year we have to disappoint a great many of our friends.

Hartsville, S. C., January 1st, 1918.

PEDIGREED SEED CO.

United States Food Administration License No. G. 53212,

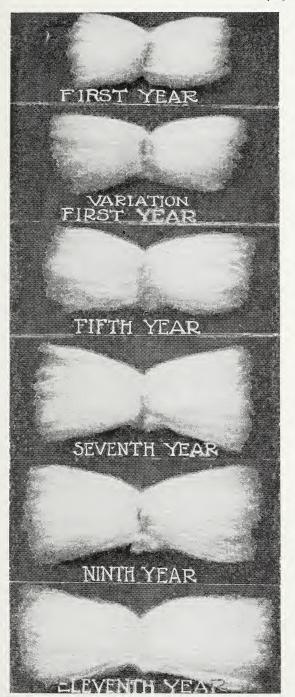
#### SUCCESSFUL CROPS

There are many factors affecting crop production. The weather, soil, fertilization, culture, plant diseases and seed, all affect the result, and any one of these may produce failure, though no one of them alone can produce success.

Of the factors which man may control, none is so important as seed. With poor yielding, poor germinating or mixed seeds, high yields of uniform quality are absolutely impossible, no matter if all the other factors of crop production are present and contribute to the success of the crop. Millions of dollars have been lost by planting seed of poor germination and millions again have been lost by planting seed that were mixed or run down. Such seed produce a non-uniform crop product that will not bring the top of the market.

With these fundamental principles in mind, we began our seed breeding experiments 15 years ago, having ever in mind the production of varieties of high yield and uniform product which would produce a maximum in money value—money value being the final and conclusive test of the efficiency of any strain of any commercial crop. The scope of our breeding work rapidly broadened, and we were finally forced to commercialize it in order to build up an organization to continue the expansion of the work and make useful to the greatest possible number of the results So the Pedigreed Seed Co. was formed and is growing year by year. We are increasing our business as fast as our breeding facilities will permit, and hope eventually to come nearer than we are now doing toward supplying the demand which is coming to us from every Southern State for pure Pedigreed Seeds. We are holding rigidly to our original ideas and will never let profit tempt us to put out a bushel of seed as "Coker's Pedigreed" which we cannot absolutely vouch for under our guarantee, nor will we let a desire to make a business success of this enterprise keep us from continuing to do accurate experimental work to solve some of the pressing problems of the Southern farmer. Year by year we are bringing out newer and better strains, and we will continue to do so, and also to publish the results of our experimental work as long as our friends, the Southern farmers, continue to co-operate as heartily as they are now doing.

# 



#### OUR SEED BREEDING WORK

The beginning of our seed breeding work goes back to 1902, when our Mr. D. R. Coker became interested in the plant breeding work being carried on by Dr. H. J. Webber, of the United States Department of Agriculture. Realizing its great significance and its great value to Southern farmers, if properly carried out, he shortly began the selection and study of cotton with the idea of producing a more valuable product; a combination of longer staple and heavier production. A great deal of his time and thought being devoted to this work, he soon realized the great possibilities of making agriculture more profitable through the development of varieties of all our standard farm crops which would produce greater yields of better quality and of higher money value.

Thus started, this work has taken rapid strides forward and has expanded until it now embraces the breeding of one or more varieties of Cotton, Corn, Oats, Rye, Peas and other field crops, and we hope eventually to breed some of the principal varieties of all Southern Staple farm crops. We are spending thousands of dollars every year carrying on this work, and although we have been doing plant breeding work on our farms since 1902, not until 1909 did we offer Pedigreed Seed to the general public.

#### Breeding Long Staple Cotton

As with any breeding work, the ultimate aim is to produce a product of greater money value, so in our breeding work with cotton we have always attempted to breed in the cotton those qualities which make it of greater money value to the farmer and to the mills, as well. Length of staple being one of the primary bases of price, we immediately began selection to increase the length of fibre. Beginning with Jones Big Boll selected in 1902, a variety which measured % in. to 1 in., we have year by year selected the longest fibred plants and, as is shown by the engraving produced here, we have gradually lengthened this staple until today our selections (which we have named Hartsville), make a fibre 1 5-16 in. to 1% in: long. In addition to selecting for length of staple, numerous other qualities were taken into consideration to make the cotton more valuable, among which are: uniformity of fibre, percentage of lint, yield of seed cotton per acre, percentage of waste fibre, strength of fibre, and the general plant qualities, including size of boll, resistance to disease, general resistance to adverse weather conditions, earliness and type of plant. All of these qualities affect the value of the cotton either from the cotton mill standpoint or from the farmer's standpoint. These facts explain why, as one planter wrote us, "Your cotton of the same length brought a higher price than other cottons of equal length."

It has, of course, required a long time and careful and expert breeding to produce these cottons. The average length of fibre added each year has averaged with one of our varieties less than 1-32 of an inch. With another variety it has been near 1-64 of an inch per year. In all of our breeding work with Long Staple Cotton for the past fifteen years we have produced only four strains of the Webber variety which we have considered worthy of introduction and recommendation and five strains of Hartsville.

We never offer seeds as "Coker's Pedigreed" until they have been bred and tested for at least four years and have made a performance record against other varieties that makes them worthy of our stamp of approval



#### OUR METHOD OF SEED BREEDING

The plant-to-row method of breeding which we have adopted is recognized by all plant breeders and experiment stations as the best method of crop improvement. The plant breeder, like the animal breeder, must make the individual the unit of selection, and in this plant-to-row method, as the name implies, this idea is carried out. The plant-to-row method in a few words, means just this:Testing the seed of individual plants in separate rows, as

near as possible under identical conditions of soil preparation, fertilization and cultivation; noting all the qualities throughout the season, harvesting or threshing each row to itself and recording the yields, qualities and characteristics of each. By this method only is it possible to identify the inherent qualities of the individual plants, and to isolate those valuable high-yielding plants which, under the same conditions and in competition with other plants, have proven their superiority.

This method of proving the individual plant, and then increasing and testing its progeny for three years, giving it a traceable pedigree back to the individual plant, is our method, and we offer for sale as "Coker's Pedigreed Seed" only the seed from these plants that have proven their value for three years by a high performance record.



HARVESTING EAR-TO-ROW CORN TESTS

In increasing these Pedigreed Seed for the public, we are ever mindful of the fact that even in the best bred stocks there are always natural variations away from the original type, and in order to keep our seed up to standard, we are careful to go over our increase blocks and discard those plants that vary seriously from type.

#### Actual Results

The most notable results of our plant breeding work are: 1st, High yielding cottons which bring from three to eighteen cents per pound more than ordinary short staples (this season the premium has been from 12 to 18 cents a pounds for good grades of our longest varieties); 2nd, A productive corn of high weevil resistance; 3rd A uniform variety of oats which has out-yielded all other kinds in our variety tests; 4th, A high yielding strain of Abruzzi Rye, which, on account of its rapid growth; better quality and heavier grain yields is quickly supplanting the native types of rye and is being widely used for cover crop purposes. Besides these we have produced sorghum, peas, and a few useful varieties of other plants which are notable improvements over their parent types.

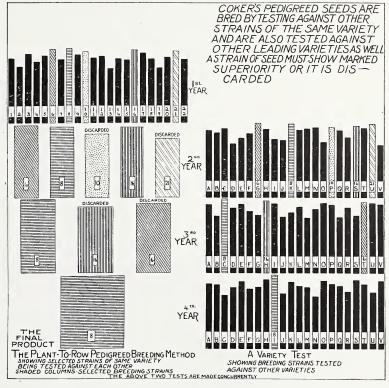


PLANT-TO-ROW TESTS OF GRAIN AND FIRST YEAR INCREASE BLOCKS



#### OUR PLANT BREEDING METHOD GRAPHICALLY ILLUSTRATED

This chart graphically illustrates the method we use in breeding. The first year is the plant-to-row tests, each row being planted with seed from a single plant. The best of these rows is selected for further testing in the increase blocks of the next year, and at the same time new plant-torow tests are also made. The third year we test the highest yielding strains from the increase blocks of the preceding year and the highest yielding rows from the plant-torow breeding blocks and as before begin over again with the plant-to-row test. The fourth year this is extended one step further and by that time we have by actual test eliminated the unfit and proved the best. This process is continued year after year and the Pedigreed strain of seed of one year may be discarded for a better strain the next year. In all this breed-



ing work accurate records are kept of every individual strain and we are able to trace its ancestry or pedigree back to the original plant or plants.

#### Extent of Our Breeding Work

Individual tests were made in our breeding fields last year from fifty-four to two hundred and seventy selections from each of the varieties we are breeding. These tests are conducted with scientific accuracy and complete records kept of each individual plant. A single page in our record book giving data on thirty-three plants, contains ninety-nine separate field notes, two hundred and ninety-seven individual reports of yields, and two hundred and sixty-four calculations based on these reports—a total of six hundred and sixty entries on a single page. And all these figures and notes may reveal only one or two strains of seed that are worthy of further testing. About ninety-nine per cent. of all our breeding work is discarded.

#### Our Variety Tests

Our variety tests include nearly two hundred of the principal varieties of the South's leading field crops. Seed are, whenever possible, obtained from the producer or originator of the variety or strain. These tests are conducted with exactness and impartiality. It is this comparative test, carried on year after year, that finally determines the real value of a variety of seed. By this inflexible method the great claims of some seedsmen and growers are reduced to absurdities.

As shown in the chart above, our selected pedigreed strains are not only tested against each other, but are also tested against other varities as well. Not only must a selected strain of seed show superiority over other strains, but it must be superior to other varieties or it is discarded. Only the fittest can survive the rigid tests to which all Coker's Pedigreed Seed are submitted.



#### OUR METHOD OF HANDLING SEED

#### Recleaning and Grading

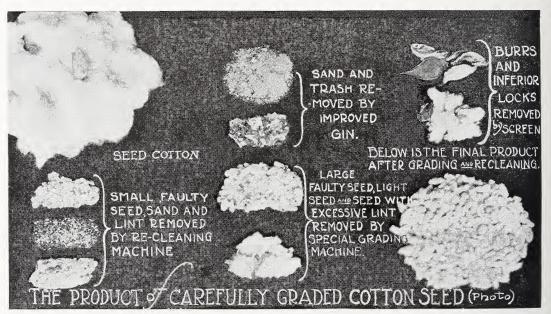
In addition to our requirements of proper breeding of seeds, we demand also that our seeds shall be sound. vital and properly graded. No matter what the breeding or pedigree of the seed may be it is an inferior product if it is full of trash, immature seeds and broken grains. For several years we have conducted accurate tests to determine the value of well graded seed. While we have always believed that there was a great difference in favor of well graded seed, the results obtained were far beyond our expectations. Read results of tests on page 8.

#### A Point to Keep in Mind

To say that a seed is recleaned does not mean that it is of first grade. Recleaning seed ordinarily means that the trash and dirt has been removed. This "recleaning" does not affect the yield. But when seed are properly graded, it means that all the light, immature and broken grains are removed, as well as all trash and foreign substance. It is, of course, quite expensive for a seedsman to thoroughly grade his seed and discard all of the lower grades, as the discarded part cannot be used except for feed purposes. But the difference in actual value of well-graded seed is so great that farmers everywhere should insist that all seed they buy should be carefully and properly graded.

#### Our Seed Cleaning Department

is operated under this instruction: "Every lot of seed must be recleaned and graded, removing all light, immature and broken seeds and all trash, dirt and foreign matter. It is better that a small proportion of good seed be thrown out than allow any inferior seed to go in." This rule is rigidly enforced even though it means at times a large loss to us. In grading oats for instance, we sometimes remove 25 per cent. in order to bring the product to the high standard of our requirements. Our large machine on which most of our grain is graded, is a double-decked, four-screen vertical air-blast machine of the most approved type, and does as perfect work as any similar machine to be found.



We also carefully reclean and grade all of our cotton seed. Our gins are fitted with special grading machines through which all cotton seed pass. So far as we know, our plant is the only one in the South operated by a seed concern, which recleans and grades all cotton seed. We do this at additional expense because we have proven conclusively that it handsomely pays the planter, and if we are to best serve his interest, we must furnish the most valuable seed that can be produced. The illustrations above, which are engraved from actual photographs, show the cotton as it goes to the gin, the nine grades of trash and the inferior seeds which our machines remove, and finally the grade of seed which we offer for sale.

The seeds we offer for sale as our own strains represent the cumulative results of fifteen years' scientific work in selecting and breeding field seeds by the plant-to-row method. During this time our seeds have been planted and tested in every Southern State with results which have shown conclusively that Coker's Pedigreed Seeds make bigger yields and better quality than ordinary seeds.



#### GERMINATION AND PURITY TESTED FOR

No matter how well bred or carefully handled a seed may be, its value for planting is only in proportion to its germination percentage. If a seed will not sprout, it is naturally of no value. In order to determine accurately the germination of our seeds, and guard against the shipment of seed of low vitality, we installed in our laboratory two of the most approved types of Electric Germinators. In adopting this apparatus, we have followed the lead of the U.S. Department of Agriculture at Washington. Heat for this germinator is furnished by an electric hot plate and the temperature is lowered by the use of an ice box. An electric thermostat

regulates the heat and sustains an even and regular temperature at any degree required. Samples of every lot of seed we handle are tested with this apparatus and the percentage of germination accurately determined. Any falling below the high standards set by us are

discarded for seed purposes.

It is needless to say that we would not have installed such an expensive apparatus nor would we go to the trouble and expense of testing all of our seeds if we were not thereby better serving the interests of our customers.

#### Purity Tests

Purity tests require a microscopic examination of all small seeds and a determination of the kind and nature of any impurities. In Sudan Grass, for instance, we are especially careful to determine the presence or absence of Johnson Grass or Sorghum Hybrids, both of which are very similar to pure Sudan seed. The pres-

ence of Johnson Grass, no matter how small the proportion, would cause

us to throw out for seed purposes any lot of Sudan.

On every bag of seed a tag is attached which gives in figures based on our tests the actual percentage of germination and purity above which we guarantee that particular bag of seed. Any failure of the seed to prove up to the figures we give lays us liable under the State Seed Inspection Laws. The value of such information and the laws behind them is apparent. Although the State Department of Agriculture makes no standard

requirement of quality for seeds, our own standards are equal and above the high standards recommended by the State authorities.

During its stay in our warehouse all seed is carefully examined frequently by seed experts to insure its vitality until it is shipped. It's position may be changed several times in order to prevent heating. Particularly is this necessary with cotton seed. For an absolute assurance experts often go into the sacks and

examine the seed carefully. Wherever there is any question of a loss in vitality, additional germination tests are conducted.

MOST IMPROVED TYPE ELECTRIC

GERMINATOR

As a final proof of our confidence in our seed, we have adopted a trade-mark which is registered in the United States Patent Office, which we use on our finest seeds. This trade-

mark stands for us and our reputation and wherever it is placed it is our guaran. tee of highest quality.



EXPERT EXAMINING CLOVER SEED UNDER MICROSCOPE



#### OUR EXPERIMENTAL WORK

In addition to our regular breeding work, we carry on each year experiments that have to do with actual every day farm problems; to determine the most profitable ways of crop production and farm procedure.

Every farmer should apply the test—Does it Pay—to every farm problem that he has to face. Such is the test we are applying to some of these problems and the results we publish (in brief) for the benefit of all who may wish to profit by our experience.

#### Fodder Pulling (Does it Pay)

We have concluded our Fodder Pulling Tests. IT DOES NOT PAY to lose 7.5 bushel of corn per acre, or 16.8 per cent. of your corn crop, for the small amount of fodder you receive. Better save the expense of pulling, make more corn and buy your forage, in case you do not make enough.

Write for our Special Bulletin on this subject.

#### Cutting and Shocking Corn

With the increased interest in Live Stock production and the Dairy, it is becoming more prevalent for the farmer to cut and shock his corn about fodder pulling time and later to shread it and utilize the stalks and leaves as stover for feeding and bedding purposes. This is a practice recommended, but the question arises, will this method and handling affect the value of seed corn and influence the next year's crop production?

We have now a striking three-year test on this ques-

#### THREE-YEAR AVERAGE

Plot		Pct.Corn.	
No.	per acre.	to cob.	Corn.
1. Corn standing	39.	87.1	19.3
2. Corn cut and shocked	33.1	84.8	24.8
	5.9	2.3	4.5

Loss due to cutting and shocking 17.8 per cent.

This is a big loss and while it may be offset by the feeding and bedding value of the stover for Live Stock, it should not be practiced on the fields used for getting seed corn. Such inferior corn would surely produce poor seed corn and give poor crop yields the following year. A one-year test on this particular point shows a loss of 3.4 bus. per acre, or 8 per cent.

#### Fertile Soil Seed vs. Poor Soil Seed

Heredity as a factor in the production of good seed and good crop yields is no longer a question in the minds of the intelligent farmers of today, but the matter of environment as a factor in the production of good seed is a question that many farmers have never thought of seriously and our tests, started four years ago, have opened our eyes to its importance. We have found that good seed from fertile soil are better than good seed from poor soil; that is, they will produce better crop

yields. A four-years' test with oats and a one-year test with corn give very striking results in favor of fertile soil.

PER ACRE

OATS (av. increased yield 4 yrs, fertile soil) ..4. bu. CORN (av. increased yield 1 yr. fertile soil) ..4.27 bu

The suggestion from this test is, that every farmer should select his planting seed from the very best soil, from the best environment, basing his selection on the field and not from the barn.

#### Cleaned Seed vs. Uncleaned Seed

The cleaning and grading of planting seed is a thing that has been brought to the attention of the farmers time after time, and yet we find a great majority of the farmers, some of them our best farmers, planting their seed just as they come from the field at harvest time.

LISTEN: Will it pay you to plant small seed that do not have the power to produce strong, healthy plants? Will it pay you to plant inferior seed, many of which will not come up when planted? Will it pay you to plant trash and broken seed that will be found in every lot of uncleaned seed? Will it pay you to plant seed that will give you trouble in planting, uneven stands and poor crop yields? IF NOT, then it will not pay you to plant seed that have not been thoroughly cleaned and graded.

The great increased yield derived from thoroughly cleaned and separated seed has led us to this conclusion, that SEED CLEANING AND SEPARATION is a tremendous factor in the production of good crop yields.

Our tests have been running for four years with oats, testing the yields from the seed that have been thoroughly cleaned, 50 per cent. removed, against seed as they come from the threshers, and the average results for the four years are given below:

We do not separate any of the seeds we sell on a 50 per cent. basis, but it would pay the farmer to raise twice as many seed as he requires each year and separate them on this basis.

Owing to the small investment necessary for every farmer to have a seed cleaning machine, there is no excuse for the neglect of this important factor. Any farmer who plants as much as 20 acres of oats would save enough in one year to more than pay for his Seed Cleaner.

#### The Constitution of Good Seed

The results and experience of 15 years of Breeding and Experimental work lead us to suggest three factors that go to make up the constitution of good seed. We give them in the order of their importance.

1.—Good Breeding. 2.—Good Environment.

3.—Good Cleaning and Grading.

# SAVE MONEY

AND YOU

# SAVE LIVES

Buy



#### What Happens

When You Spend Your Money?

When you spend money you pay for somebody's services and you pay for the material that is used to make the article you buy. If you buy things with your money that you actually need, food, clothing, or other necessities, you are spending your money in the right way. But if you buy things you do not need you are taking goods and services from our fighting forces.

#### What Happens

When You Lend Your Money to the Government?

You should buy only the things you can not do without. The money you usually spend for things you do not need should be saved. Then lend your savings to your country. The Government can use that money to get the goods and services needed to supply the Army and Navy with the food, clothing, and ammunition they must have in order to win the war.

#### How to Save.

Save a quarter. Go to the nearest post office and buy a U.S. Thrift Stamp. Paste it onto a U.S. Thrift Card. When you've bought 16 U.S. Thrift Stamps, add 12 cents, or whatever is the increased price during the month in which you buy, and receive a War-Savings Stamp, for which you will be paid \$5.00 on January 1, 1923, if you hold it until that date. This is 4 per cent interest compounded quarterly.

Let a company of savers back every company of soldiers.
[WS 114]



#### OUR PLANT AND FARMS

A work of the nature of commercial plant breeding and experimental farming could not be effectively executed without a complete equipment. Nor could we afford with such an undertaking to take any half-way steps. Our purpose is to furnish the most useful and valuable seeds and a mass of indispensable information gained from accurate experiments. Eventually we hope to furnish our seed in sufficient quantity to fill every requirement of our customers, but we are far from doing this at present.

Our seed plant consists of a Large Cotton Ginning Plant, directly connected with two Seed Cotton Receiving Houses, and a large Seed Breeding and Storage Warehouse. Three other ginneries are also required in ginning the different varieties of our Pedigreed cotton seed.

Our Seed Cotton Receiving Houses are designed to provide separate rooms for each strain of seed cotton and are directly connected with our Ginnery with suction pipes. Our Ginning Plants are arranged with the very best equipment for handling seed cotton before ginning, and for recleaning, grading and sacking the seed.

Our main Seed Warehouse is a three-story frame building, consisting of Storage Rooms, Seed Bins, Shipping Rooms, Laboratories, Plant Breeding Rooms, Germination Rooms, Fumigating Rooms and General Executive Offices. It was designed after a careful study of seed houses throughout the country, and we believe it unsurpassed in the South for handling field seeds. The equipment consists of modern seed cleaning machinery, especially designed corn nubbing machinery, automatic weighing machines and other equipment necessary to give a maximum efficiency. Nine modern seed cleaning machines are required to clean and grade our seeds.

So complete is our equipment that it is not necessary that any seed be handled by hand from the time it enters the building until it is automatically weighed into the bags, except seed corn, which is graded by hand. So complete are our facilities for handling orders that we are able in practically every case to fill an order the day it is received.

Our farms are devoted exclusively to the production of fine seeds with the exception of the acreage necessary for feed crops and cover crops. Our own farms, however, are insufficient to meet our requirement and we have, therefore, found it necessary to use several additional farms operated under our direction, for seed production. At present more than 4,000 acres at and around Hartsville are used by us in the production of Coker's Pedigreed Seeds.

We sell no seed as Coker's Pedigreed except that raised from our own planting stocks and even when our stocks are exhausted we will not purchase and sell as Coker's Pedigreed, seed even from customers who bought from us the year before. It is only by this exclusive method that we are able to know and guarantee the purity and high quality of our seeds.



PLANT BREEDING ROOM AND CHEMICAL LABORATORY.



#### THE NEW STAPLE COTTON INDUSTRY

#### A.—Origin

About the year 1900 Dr. H. J. Webber of the Bureau of Plant Breeding of the United States Department of Agriculture, began making some experiments at Hartsville and Columbia for the purpose of improving the productiveness and staple of local varieties of cotton. These experiments quickly revealed the importance of this plant breeding work, and in 1902 Dr. D. N. Shoemaker and Prof. W. C. Coker made on the Hartsville plantation a set of selections consisting of 30 plants from a field of Jones Big Boll short staple cotton. The following year Dr. Shoemaker planted the seed of these selections by the plant-to-row method, and with the assistance of Mr. D. R. Coker made the first selections of Hartsville cotton. Dr. Shoemaker left Hartsville the following year and turned over to Mr. D. R. Coker this breeding work.

For several years Mr. Coker carried on this work during his spare time, without assistance, each year making some advance in productiveness and length of staple, adhering strictly to the plant-to-row method. After five years of breeding Mr. Coker discovered a particularly good plant of full 1 3-16 staple, the breeding number of which was 16-1-2-4-1, it being descended from plant number sixteen of the original selections made in 1902. The seed of this plant were tested against the other selections made in the same generation and, proving superior in length and productiveness, were increased until in 1909 the Hartsville plantation was planted entirely in the seed descended from this one plant. In the spring of 1910 the first Pedigreed Hartsville Seed were offered.

From the best plant of the 1908 selections the Hartsville No. 7 cotton originated and Hartsville Nos. 9, 11 and 12 were later evolved from the best plant of their respective generations. The Hartsville No. 12, our latest Pedigreed strain, has 12 generations of breeding behind it, being descended from the best tested plant selected in 1913.

The Webber cotton is an offshoot of the Columbia variety, being descended from an unusually fine plant of Columbia cotton and further improved by Mr. Coker.

Keenan cotton was bred by Dr. Webber and Mr. R. C. Keenan, of Columbia, the strains of this cotton planted in this section being offshoots of the original variety pedigreed by Mr. T. E. Goodson, Mr. A. H. Rogers and Mr. J. M. Middleton from seed introduced here by Mr. Coker.

The product of these three (Hartsville, Webber and Keenan) varieties and their sub-varieties, are the staple cottons for which Hartsville and adjacent territory has recently become famous. All are originally descended from short staple varieties and possess the vigor and productiveness of the parent types.

#### B.—Market Developments

Upon the introduction of the seed of these new staple varieties into this section Mr. D. R. Coker conceived it to be his duty to provide a market for the product of these new seed. The history of his struggle to accomplish this end would fill a volume. Every staple mill in the country had a prejudice against upland staple cotton from this section, owing to the fact that most of the cotton of this description which had previously come from the Carolinas had been irregular, poorly handled and with inferior spinning quality. A few intelligent Southern spinners, however, were finally convinced that we had a different and superior product and through their cooperation, but against constant discouragements, a market was slowly made for the new varieties.

From the very first Mr. Coker has endeavored to see that every bale of staple cotton offered in Hartsville should bring its full market price. His firm (J. L. Coker & Co.) has nearly always been actively in the market, but whether in the market or not was glad to advise the farmers as to the quality and value of their cotton, recognizing that a staple industry could not be kept up to a highly efficient point unless the farmer was informed of the value of each bale of his product and was able to sell the longest and highest grade cotton at a proportionately higher price than the shorter lengths and lower grades.

#### C.—Suggestions as to Growing Staple Cotton

#### 1. VARIETIES.

As the boll weevil has now covered practically the entire cotton belt with the exception of North and South Carolina, and has already reached South Carolina, it is vital for the cotton planter to decide on a variety which stands most chance against the depredations of the weevil. This cuts out of consideration in territory already infested or likely to be infested within a year or two, all except early maturing varieties of cotton. The only very early maturing variety of cotton making a staple of 11/4 in. or longer which we know of is our Weber 49, and the next earliest of this description is our Webber 82. In breeding these cottons we had in mind the approach of the boll weevil and the production of varieties which would partly escape his ravages, and we offer our newest strain of Webber 49 with the assurance that it is the best long staple cotton yet produced for boll weevil conditions.

Leaving the boll weevil out of consideration, we think our Hartsville No. 11 and No. 12 are the best staple cottons we know of. The No. 12 is considerably earlier than any other strain of Hartsville we have put out, but is not as early as Webber 49 and 82. For productiveness and character of lint, however, this is the very best cotton we have produced and may be safely planted in the eastern South Carolina and in North Carolina for two years longer.

#### 2. SEED.

In buying seed it is, of course, essential to obtain those of absolute purity which have been bred to pedigree. It is almost equally important, however, to assure yourself that the seed have been well handled and not allowed to heat; have been recleaned and all light, inferior seed, trash and dirt taken out, and that they have been grown under good conditions. All cotton seed have a percentage of inferior, immature seed in them when they come from the gin, and these, with the trash and dirt which uncleaned seed usually contain, are a dead loss to the planter. Besides, many light seed if planted will come up and form sickly plants which will not produce a maximum yield.

Another thing which is not suspected by most farmers is that seed produced under poor conditions will not yield as well as seed produced under good conditions. We have for years been making tests which prove this beyond the shadow of a doubt, and we will be glad to show any farmer the results of five years testing which completely proves this point.

#### 3. CULTURE

The best results with cotton are usually obtained from early planting and liberal fertilization. Good land well fertilized will usually produce better staple than poor land. Most of the staple cottons have very large seed, and not less than one bushel per acre should be used in seeding. The distance between rows and in the drill is a matter for the individual judgment of the farmer, as it varies very greatly under different conditions.

Staple cotton should never be allowed to suffer for culture. Anything which interferes with the growth of the plant interferes with the development of the staple. We have found it profitable here to cultivate our cotton until it lapped in the rows. We frequently plow right up to the first of September.

#### 4. PICKING AND HANDLING.

The staple varieties planted in this section have much larger bolls than most varieties. They also hold well in the burr, not hanging far out of the boll as some varieties do. These characteristics prevent our staple cottons from blueing up quickly in the fields. But, notwithstanding this, it is most important to gather staple cottons promptly, for there is, of course, some decline in grade the longer the cotton remains unpicked.

The difference in value between staple cottons grading strict middling or above is often very great as compared with middling or below. There is often a difference of 5c or more between strict middling and low midding  $1\frac{1}{4}$  in. cotton, while the difference in these grades in short cotton usually rules around 1c. It is quite evident, therefore, that every effort should be bent towards keeping closely up with the picking of staple cottons. Strict and good middling staples have nearly always been in active demand, but the lower grades are sometimes hard to place, even at the wide differences which are frequently quoted.

#### 5. GINNING AND PACKING.

Staple cotton should not be ginned when damp. If picked during moist weather or even when a heavy dew is on the cotton it should be sunned before ginning. Five to twenty dollars per bale is frequently lost in staple cotton by ginning it green or damp. In ginning staple cotton be careful to see that the roll has been cleaned out before ginning, as otherwise there will be a plate of different length or different grade cotton on one side of your bale, and besides you get some seed from the preceding bale.

The great secret of ginning staple cotton is a soft gin roll. Not more than two-thirds as much staple should be put through the gin per hour as is usual with short cotton. A speed of about 400 revolutions per minute will produce satisfactory results with a soft gin roll, provided the brushes are speeded 1,500 to 1,600 revolutions. The lint should be blown direct into the press box from the gin and not foot packed.

We will be glad to furnish detailed instructions as to ginning to any one who will write.

Bales should be put up to weigh around 500 lbs., and 6½ yards of two-pounds bagging and 6 ties should be used. The weight of this covering is 22 lbs., which is all the tare that is allowable on uncompressed cotton by the Carolina Mill rules.

#### D.—Marketing

Many farmers who would otherwise plant staple cotton are deterred from doing so from lack of a convenient market. If they understand how to proceed, however, this need not affect them.

If a good quality of cotton is made, and if it is properly ginned and packed it can be sold without serious trouble. There are reputable dealers in every large staple cotton market who will bid on cotton from well drawn samples. Many thousands of bales are bought in this way by Hartsville merchants, much of this cotton coming from Georgia and North Carolina. If two or more sets of samples are sent to different buyers the farmer is apt to receive a fair bid.

The following sampling instructions will be found useful:

Draw smooth sample weighing about four ounces from each side of each bale. Put ticket showing number and mark of bale between each pair of samples. Wrap in several folds of strong paper and send by parcel post. Be sure to write your name and address plainly on package.



#### E.—Questions and Answers.

Below we will attempt to answer a number of the questions about staple cotton which are often asked us.

#### 1. In what sections can upland staple cotton be raised?

It can be raised with more or less success wherever short cotton will grow. The Piedmont and upper Coastal Plain of South Carolina seems to produce a stronger fibre than the lower part of the Coastal Plain, but we have seen some very satisfactory staple produced in the lower part of the State. Very light, sandy land usually produces shorter staple than better land.

#### 2. Who should plant staple cotton?

Any farmer who has fairly good land and who will go to the trouble to do the few essential things necessary to success. The man who will buy any kind of seed, cultivate his crop in any old way, gin it badly and without cleaning out the roll and then expect some buyer to run him down and pay him a fancy price for his cotton will be seriously disappointed and had better stick to short cotton.

#### 3. Does staple cotton yield as much as short varieties?

Every year we have a variety test of many varieties of both long and short cottons. We do this for the purpose of testing the comparative yields of our staple varieties. These tests have been running for many years and our staple varieties frequently, though not invariably, lead in yield. There is little if any difference between the average yield of the best short staple varieties and our Pedigreed long staples.

In the monthly crop report of June, 1917, of the National Department of Agriculture there is a lengthy article entitled "Length of Cotton Lint, Crops of 1915 and 1916," in which the statistics quoted show a slight difference in favor of short staple over long staple in yield. On page 53 of that report, however, the yield per acre in South Carolina for 1916 is given as 156 lbs. average for long staple as against 155 lbs. for short staple, the figures for 1915 for South Carolina being 228 lbs. for long staple and 232 lbs. for short staple.

#### 4. How do long staple prices compare with short staple prices?

There is a great variation from year to year in the premium which long staple cottons bring. The lowest premium in any year since 1910 has averaged about 3c per pound. The highest premium has prevailed during the present season, when a great deal of the staple cotton sold on the Hartsville market has brought at least 15c per pound premium. Leaving out the present year, we should say that 5c per pound was about the average premium realized for staple cotton on the Hartsville market.

#### 5. Will long staple always bring a premium over short?

No one can judge the future except by the past. It always has brought a premium and it can, we think, be safely predicted that well handled staple cotton from pedigreed seed will always bring a premium more than sufficient to pay for the extra trouble and expense of producing it. Staple cottons are used for making sewing thread, yarn for automobile tires and fine cloths and yarns which are used for various purposes. There are now dozens of mills in North and South Carolina which use this cotton, and besides there are a great number in New England. In normal times the exports of staple cottons to England and France are very considerable.

#### In Conclusion

We must not lose sight of the fact that unprecedented conditions now prevail all over the world due to the war, and that it is impossible to forecast the future. Every Southern farmer should first of all raise an ample supply of foodstuffs. After the farmer has done his full share in response to the call of the nation for food production he will, we think, be justified in raising all the cotton he can of a variety adapted to his conditions.

"LONG STAPLE PRICES."—Editorial in the "State," Columbia, S. C., September 11th, 1917:

Hartsville, S. C., is one of the principal long staple cotton markets in the State and it is a market in which the producer gets the value of his product, the cotton being carefully graded and the right price paid regardless

of local competition or lack of it in buying.

The Hartsville district enjoys two advantages. In the first place, the cultivation of improved varieties of cotton has been encouraged among its farmers for a number of years and now they are reaping the handsome rewards. In the second place, the market is justly and well regulated and the producer knows what he is doing when he makes a sale. Of course The State is not saying that Hartsville is the only market of this sort, but it can and does say that producers of long staple cotton consult their own interest by keeping their eye upon it.

The average farmer, outside of three or four counties of the State, is ignorant of long staple prices and if he have only a few bales of it to sell may fall an easy prey to an unscrupulous buyer. That is one of the obstacles to the improvement of grades of cotton produced in South Carolina. The farmer long familiar with short staple cotton shrinks from experimenting with the better varieties because of his sense of helplesness in disposing of

them after they have been produced.

So far as the features of soil and climate are concerned, the areas in South Carolina now producing long staple cotton could be almost indefinitely multiplied. The standardization of market prices is, therefore, a matter of profound concern to the cotton industry throughout the State and can give farmers no better advice than that they keep themselves informed in respect of Hartsville.

# PEDIGREED SEED CO. HARTSVILLE S.C. SEED WITH A PERFORMANCE RECORD

#### COKER'S PEDIGREED WEBBER NO. 82

Long Staple Cotton

this trade-mark. is your guarantee of superior quality. The origin of Webber cotton goes back to 1907, when our President, Mr. D. R. Coker, in company with Dr. H. J. Webber (then with the United States Department of Agriculture and for whom we have named this cotton), took a few seeds from a particularly productive and healthy plant of Columbia cotton growing in a field of that variety in Columbia, S. C. From these seed were produced twelve plants on

> fruitfulness, length and general character of the cotton was so striking that all of the seed of these twelve plants were increased in 1909. Two rows were planted in our variety test of twenty-four varieties with the result that the Webber made more seed cotton than any other of the forty-six rows. These seed were increased the next year and this field formed the basis of our later breeding work with this variety. Year after year, we have carefully tested this cotton in variety tests against more than a hundred other varieties and strains with the result that Webber has stood at or near the top in yield and has surpassed in money value any cotton we have ever found except our latest

our Experimental Farms the next year. The

In 1910, we began our new breeding work on Webber cotton, making plant selections from our twenty-five acre field of this cotton. In our 1911 plant-to-row test, consisting of about ninety rows, each planted from the seed of a different plant of Webber selected in 1910, several rows stood up splendidly in comparison with the general average. Two of the most striking rows

in the block were numbers 82 and 49.

two strains of Hartsville.

Our Webber No. 82 is the most productive strain of staple cotton of this variety we have ever produced. It has very large bolls (60 bolls average to the pound), makes 1% in. staple under good conditions, has a much smaller seed than the parent type

and is earlier, being intermediate in this respect between the original strain of Webber and the 49. The percentage of lint

runs between 33¾ and 34½. The yield is greater than the yield of the parent Webber by 10 per cent. or more. Planters, cotton buyers, farmers, cotton mills, are all enthusiastic over this cotton, and it has found ready market this year at high prices.

WEBBER NO. 82, PLANT AND COMBED SEED (Engraved from Photograph)

This cotton seed was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws. The seed carries our registered trade-mark, which is our badge of distinction and guarantee of quality. PRICES: See Price List, inside cover.

Estill, S. C.—Two years ago I bought some of your Webber No. 82 long staple cotton and planted it. The results were so satisfactory that lots of my neighbors bought seeds from me and all of us have made a handsome profit by using it. Oct 10th. S. M. C.

#### COKER'S PEDIGREED WEBBER NO. 49 LONG STAPLE COTTON

Strain No. 1

The history of Coker's Pedigreed Webber No. 49 is parallel to

No.. 82. In our plant-to-row tests of Webber in 1911, rows
No. 49 and 82 showed their outstanding superiority over
the other rows. The most noticeable and one of
the most valuable characteristics of row No. 49
was its comparative earliness of maturity. This
earliness of maturity combined with its good
stable length and excellent quality of fibre

weevil conditions. In the breeding fields Webber No. 49 has made above the average vield of a good quality of 11/4 in. to 1 5-16 in. staple, and was nearly all open before the other cotton was half open. It has larger bolls, 65 making a pound of cotton. Since 1911 we have selected and improved this strain, until now it has proven by actual test to be the superior of any long staple cotton yet produced in the combination of earliness and character of staple. It is practically as early as any of the short staple varieties. For several years this cotton has been tested and grown in several sections of boll weevil territory and the universal

at once indicated its adaptability for boll

report is THAT WEBBER NO. 49 IS THE BEST STAPLE COTTON OF ITS LENGTH EVER PRODUCED

FOR BOLL WEEVIL CONDITIONS.

Its earliness and rapidity in maturing combine just the qualities that make it valuable under boll weevil conditions. Outside of boll weevil territory, its earliness makes it especially profitable in short seasons when an early frost kills the top crop of late cottons. We have sold every bushel of this seed every year since we first produced it, restricting single orders to a customer to 20 bushels.



WEBBER NO. 49 PLANT AND COMBED SEED (Engraved from Photograph)

All of this seed was ginned on our private gin and carefully graded. It is sacked in new burlap bags. Every bag carries a card giving our purity and germination test and also a tag giving permit from the State Crop Pest Commission of South Carolina to transport the seed under the State Pure Seed Laws.

PRICES: See Price List, inside cover.

Our reputation

and your crop

are protected by this trade-mark.

Belen, Miss.—Your Pedigreed Webber 49 is as early as any other variety of Long Staple Cotton that I know of, and I consider it much better as an all round cotton than the Express variety, which is planted as a boll weevil cotton. The Boll Weevil did not make its appearance here until about the 20th of July, and the crop at that time was so far advanced that if they did material damage we could not tell it. In my opinion it is the best variety of cotton grown for this section of the country.

Oct. 10th. W. G. C.



#### COKER'S PEDIGREED WEBBER NO. 49 LONG STAPLE COTTON

Strain No. 2



Look for this heart. It signifies quality.

Continuing our selecting and breeding work with Webber No. 49, always with the immediate object in view of developing the most satisfactory staple cotton for boll weevil conditions, we have produced Strain No. 2 Pedigreed Webber No. 49, which more nearly conforms to the ideal boll weevil type of cotton than the parent No. 49.

This No. 2 strain of Webber No. 49 cotton which we offer this year for the first time represents our best efforts to date to produce an early staple cotton that will make a good crop under boll weevil conditions. It represents the cumulative efforts of seven years of breeding for earliness. This strain embodies characters of earliness, productiveness, open—thin foliage—type and good staple length, to a marked degree and is the best strain of our Webber 49 yet produced. This No. 2 strain makes full 1½ to 1 5-16 in. staple under favorable conditions.

Webber No. 49 has been praised throughout Boll Weevil territory as an excellent cotton that will produce good crops even though the weevil infestation is heavy. This NO. 2 STRAIN, which is earlier and more productive, represents



FIRST BALE ON MEMPHIS, TENN., MARKET, 1916.

a further development of those desirable qualities which have already won for the parent Webber No. 49 strain its great popularity in the boll weevil territory.

PRICES: See Price List, inside cover.

DILLARD & COFFIN CO.
Cotton Factors

Memphis, Tenn., February 3rd, 1917.

Pedigreed Seed Co., Hartsville, S. C. Dear Sirs:

For several seasons past we have been recommending to our shippers your Webber cotton, and take pleasure in stating that our reports from this seed are universally satisfactory. In our salesroom we find the Webber cotton especially desirable on account of its evenness as well as strength of fiber. Your Webber No. 49 we consider a most desirable cotton to be planted by those wishing an early staple. We do not know of a cotton superior to your Webber No. 49 for the Mississippi Delta, and have taken pleasure in freely recommending it to our shippers.

(Signed) Dillard & Coffin Co.
Paul Dillard, President.



PLANT-TO-ROW TEST OF COTTON, SHOWING EARLINESS OF WEBBER 49-(Middle Row)

#### COKER'S PEDIGREED HARTSVILLE NO. 11

#### Long Staple Cotton

In breeding New Strains of cotton there are many items that must be considered: General type of plant; yield; length, strength and uniformity of staple; percentage of lint; strength of plant; ability to resist disease; earliness of maturity, etc., etc. All All these and many other items enter. Manufacturers and buyers demand certain virtues in cotton, while the planter demands others. Our efforts in breeding

cotton have been toward the perfection of a strain of cotton that will answer as nearly as

possible the demand of the planter, buyer and manufacturer alike. The task is not an easy one. To find and fix the desired qualities hundreds of experiments, years of careful scientific work and great expense are necessary. Our Hartsville No. 11 is a strain of staple cotton that has satisfactorily stood the most exacting tests of breeder, growers and manufacturer, combining as it does most of the desirable qualities.

The splendid results obtained by planters of our Hartsville No. 11 have earned for this cotton a popularity not surpassed by any other strain of staple cotton we have yet produced. Year after year we have selected and improved the Hartsville variety.

streeted in the street that the planter and to the mills. Our No. 11, of Hartsville, distributed by us last year for the first time, has closely met the requirements of both the grower and spinner to a remarkable degree.

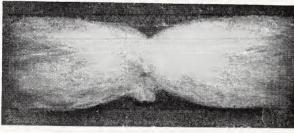
This variety is very productive and under good conditions makes a lint of 1% inches of remarkable uniformity and strength. It has large bolls (55 to the pound of cotton), is

easily picked, is practically storm proof and always makes a high grade as compared with other cottons picked at the same time. It is highly resistant to most diseases, (it is not wilt resistant). It and the other strains of Hartsville stand unfavorable weather conditions, such as drought and excessive rain, better than any other long staple variety. Hartsville No. 11 turns out 31½ per cent. lint. This cotton brings top prices on staple markets.

This cotton seed was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws. The seed carries our registered trade-mark, which is our badge of distinction and guarantee of quality.

PRICES: See Price List, inside cover.





HARTSVILLE NO. II, PLANT AND COMBED SEED (Engraved from Photograph)

#### COKER'S PEDIGREED HARTSVILLE NO. 12

Long Staple Cotton



No seed bearing this trade-mark will be shipped unless it shows a germination of at least 90 pct.

Pedigree plant breeding is an endless process toward perfection. No matter how excellent a product may be, there is always room for further improvement and selection. We are at all times selecting, breeding and testing new strains of our selected varieties, striving to produce a plant of greatest value to the farmers and to the buyer of his product.

Hartsville No. 12 represents a later selection and a more valuable cotton than its predecessor, No. 11. It is the earliest and most productive strain of Hartsville cotton we have yet produced. Its pedigree traces back to 1902, but it is much earlier and carries a higher percentage of lint and longer fibre than any other strain of Hartsville we have

previously bred. The type of this cotton is open growing with rather light foliage, large round bolls that open wide and fluffy, making it much easier to pick than other strains with more pointed bolls (55 bolls of this cotton make a pound). The lint percentage of this strain runs about 33 per cent. including the weight of bagging and ties, which is about  $1\frac{1}{2}$  better than our other Hartsville Strains. Under good conditions the staple will run full 1 5-16 in. The type, productiveness and earliness of this cotton, combined with its lint percentage and length, makes it the most desirable strain of Hartsville cotton that we have yet offered.

All of this seed was ginned on our private gin and carefully graded. It is sacked in new burlap bags. Every bag carries a card giving our purity and germination test and also a tag giving permit from the State Crop Pest Commission of South Carolina to transport the seed under the State Pure Seed Laws.

PRICES: See Price List, inside cover.



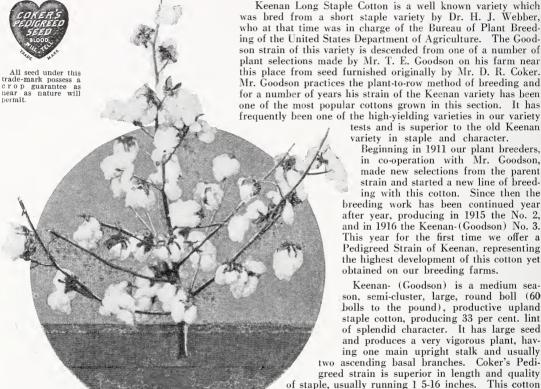
INCREASE BLOCK OF HARTSVILLE VARIETY

#### Buy Your Staple Cotton Seed From Headquarters

We are are originators of the Hartsville and Webber varieties of Long Staple Cotton and the principal breeders of staple cottons in the South. Our plant breeding work in this line is the most extensive carried on by any individual or firm in the Cotton Belt, costing many thousands of dollars each year. We are the largest long staple cotton seed dealers in the South and ship every year thousands of bushels of staple cotton seed to all sections of the South. The general success with our staple cotton seed and the resulting heavy demand is ample evidence of the high quality of our seeds. Every bag carries our guarantee of purity, trueness to type and pedigree, and high germination. Buy your seed from Headquarters, so you may know that you are getting the best. Staple cotton seed from other sources are often grown from seed furnished by us years before and in many cases represent strains we have long ago discarded, much of it being mixed and "run back" to shorter and less desirable cotton.

#### COKER'S PEDIGREED KEENAN-(GOODSON)

Long Staple Cotton





KEENAN-(GOODSON) PLANT AND COMBED SEED (Engraved from Photograph)

Feb. 6th.

plant selections made by Mr. T. E. Goodson on his farm near this place from seed furnished originally by Mr. D. R. Coker. Mr. Goodson practices the plant-to-row method of breeding and for a number of years his strain of the Keenan variety has been one of the most popular cottons grown in this section. It has frequently been one of the high-yielding varieties in our variety tests and is superior to the old Keenan variety in staple and character. Beginning in 1911 our plant breeders, in co-operation with Mr. Goodson,

> made new selections from the parent strain and started a new line of breeding with this cotton. Since then the breeding work has been continued year after year, producing in 1915 the No. 2, and in 1916 the Keenan-(Goodson) No. 3. This year for the first time we offer a Pedigreed Strain of Keenan, representing

> the highest development of this cotton yet obtained on our breeding farms.

Keenan- (Goodson) is a medium season, semi-cluster, large, round boll (60 bolls to the pound), productive upland staple cotton, producing 33 per cent. lint of splendid character. It has large seed and produces a very vigorous plant, having one main upright stalk and usually two ascending basal branches. Coker's Pedi-

greed strain is superior in length and quality of staple, usually running 1 5-16 inches. This cotton is one of the easiest to pick of any staple variety and is highly resistant to most diseases.

> We cannot recommend this cotton for boll weevil territory, as it is not early enough.

> All of this seed was ginned in our private gin and carefully graded. It is sacked in new cotton bags. Every bag carries a card giving our purity and germination test and also a tag giving permit from the State Crop Pest Commission of South Carolina to transport the seed under the State Pure Seed Laws.

PRICES. See Price List, inside Cover.

Columbus, Ark.—I ordered 8 bushels of Webber No. 82 from you last year. When I ordered these seed it was to be my last time to order seed unless they were more of a success than seed I had been ordering elsewhere. I am ordering seed from you again, which means I was pleased and highly pleased at that. The Webber No. 82 was planted on upland and on land that had been planted in cotton for ten consecutive years, and made the best yield it had made for five years. Staple was strong even fibre 1 5-16 inch length and 1570 pounds of seed cotton made a bale of cotton weighing 493 pounds.

J. L. S.

#### SHORT STAPLE COTTONS

Every year we conduct variety tests of the principal varieties of both long and short staple cottons. Included in these tests are all our own Pedigreed varieties and strains of cotton and many other varieties as well. These tests, conducted with

scientific precision and impartiality, and carried on year after year, show up the virtues as well as the shortcomings of all the varieties. These tests afford a comparison of the varieties with one another and

give an excellent basis on which we may determine the relative

merits of all.

In our tests for the past several years, the highest yielding short staple varieties have been Cleveland Big Boll, Cook's Improved and Mexican Big Boll. These we consider the best short staple cottons for four reasons: (1st)

They are the heaviest yielders; (2nd) They have medium to large bolls; (3rd) They have uniform lint; (4th) They are easy to pick. To planters of Short Staple Cottons we recommend these varieties.



CLEVELAND BIG BOLL COTTON (Engraved from Photograph)

#### CLEVELAND BIG BOLL Short Staple Cotton

This variety has produced excellent results in our tests. It is one of the heaviest yielding

cottons and probably the most popular Short Staple variety in the South. It makes a uniform lint and full staple. This feature makes it very desirable for the manufacturer and has a great deal to do with its popularity. It has large bolls (60 bolls make a pound) and is easy to pick. Our seed is descended from Wannamaker's strain of this cotton and is superior to any other strain we know of yet produced. It has always stood high in our tests.

This cotton was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws.

PRICES: See Price List, inside cover.

#### WHY ARE "PEDIGREED" SEED BETTER THAN OTHER SEED?

Because they are produced by testing many plants, and only those which show up best in the tests and run true to type are used as parents. All the others are discarded. If you had fifty horses, and tested them against each other, you might find four better than the rest. Then by breeding those four, and testing their progeny, you might find that the progeny of one of them was better than all others. If continued for several generations, breeding toward a pure type, you would in time have a horse that was pedigreed and one that was better than the progeny of all others with which you started. This is what we do wit's seeds. Every plant differs from all others just as people or horses differ. They may look almost exactly alike, but one of them may prove to be the parent of a strain of seed that will greatly outyield the other. The only way to know is to test them. That is what we do. And sometimes it takes five hundred tests to produce a single pedigreed strain that is distinctly better than the rest.



### PEDIGREED SEED CO. HARTSVILLES C

#### COOK'S IMPROVED

Short Staple Cotton

The yield of any strain of cotton is always one of its most valuable assets. With Cook's Improved Short Staple Cotton its yield and its percentage of lint makes it one of the best short staple varieties. It is an early, semi-cluster, medium to large boll, productive short staple cotton, having a small

> seed (65 bolls make a pound of cotton). It yields about 38 per cent. lint. This cotton has been a heavy producer wherever it has been tested throughout the South. Reports from the Alabama, Georgia, North and South Carolina Experiment Stations place it among the best varieties tested. It has stood well in our tests for five years.

This cotton seed was ginned at our private gin, and carefull graded. It is sacked in new bags. Every bag carries a card giving our purity and germination tests, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure

Seed Laws.

PRICES: See Price List, inside cover.



#### MEXICAN BIG BOLL Short Staple Cotton

The principal factor in the successful record of this variety is its earliness of maturity. It has the distinct advantage, however, of having combined with its early maturity a productiveness far above the average Short Staple variety. Our years of experiments with Mexican Big Boll have convinced us that it is one of the best EARLY short staple cottons. It is a productive, open growing, large boll cotton (59 bolls to the pound), has a medium sized seed and makes about 34 per cent. lint of a good uniform character. It has stool well in our tests for many years.

This cotton seed was ginned at our private gin, and carefully graded. It is sacked in new bags. Every bag carries a card giving our purity and germination test, and also a tag giving permit from the State Crop Pest Commission of South Carolina, to transport the seed under the State Pure Seed Laws.

PRICES: See Price List, inside cover.

McFarlan, N. C.—I write to say that I bought some Dixie Wilt Resistant cotton seed from you last spring. I planted them on land injected with wilt. It did the work for me. I had a small plot of ground in one field that I had not had a stalk of cotton on in three years until this time. I have a perfect stand on it now. I also planted a few rows in other fields of these seed and I find it will not only resist wilt but will stand bad weather. I think I will plant all of my crops next year in these seed.

Sept, 22th. A. M. P.



In all strains of seed covered by this trade-mark we have made a distinct improvement on the parent type.

#### WILT-RESISTANT COTTON

Recognizing the demand for cotton which will grow on land infected with wilt (blight), and realizing that the production of cotton having this quality is primarily a task for the seed breeder, we began last year breeding the variety which is generally accepted as best for wilt conditions, Dixie. The Director of the Wilt Investigations of the United States Department of Agriculture furnished us seed of the finest and most productive plants of this variety produced by the Government and with this as a basis we have started pedigree breeding. The improved strain we are offering you this year represents the best strain of this cotton developed by the Government plant breeders.

Farmers' Bulletin No. 625 of the United States Department of Agriculture gives details of the Wilt-Resistant Investigations conducted by the Government and may be obtained by writing to the Department. The following extract and description of the Dixie variety is quoted from this bulletin:

"The commercial varieties of cotton differ considerably in their susceptibility to wilt, but none of them are sufficiently resistant to be grown profitably on wilt-infected land. As the result of many tests it has been found that the large-bolled cottons, such as the Russell, Cleveland, Truitt, and Rogers, are in general more subject to wilt than other groups. Some of the small-bolled varieties have shown considerable resistance and have been used as a basis for the breeding of resistant strains.

"The experiments of the Bureau of Plant Industry, which have now been carried on for fifteen consecutive years, have shown that the only practicable solution of the wilt problem is through the use of wilt-resistant strains developed by special breeding. Such cottons have been produced and grown successfully for the past eight or more years on thousands of acres of wilt-infected land in a large number of localities, until no doubt remains as to the possibility and practicability of controlling the disease in this way. During this period these varieties have been further improved by selection for greater resistance, larger yield, longer lint, higher percentage of lint, and other desirable qualities.

"The development of wilt-resistant strains requires breeding for several years by the careful methods described later in this bulletin. Mass selection from apparently resistant strains of existing commercial varieties will not suffice. The selection of apparently resistant plants from the varieties usually grown may occasionally lead to the development of a resistant variety, but will generally result in disappointment. Only by the selection of resistant plants from an inherently resistant strain, by the subsequent testing of these on wilt-infected land, and by the continuation of individual selections and progeny-row tests can a resistant variety be developed."

#### \*Dixie Wilt-Resistant

"The second wilt-resistant variety developed by the Department of Agriculture was the Dixie. This has the branched pyramidal habit of growth characteristic of the Peterkin group of varieties and on this as well as other accounts has gained much wider popularity than the Dillon. The Dixie had its origin in a selection made at Troy, Ala., of a plant presumably the result of an accidental cross between two of the numerous upland varieties planted there in 1902. It has been carefully bred by the plant-to-row method until well fixed and has been considerably improved in earliness, size of boll, and percentage of lint.

"The Dixie variety is now being grown very extensively throughout the wilt districts of Alabama, Georgia and South Carolina and is very largely displacing the Dillon.

"A technical description of the Dixie variety follows: 'Plant vigorous, wilt resistant, of medium height, pyramidal, nearly of the Peterkin type, usually with two or more large basal branches, and with long, slender, slightly drooping fruiting limbs; leaves of medium size; bolls of medium size, about 75 being required for a pound of seed cotton, easy to pick; seed small, weight of 100 seeds, 10 grams, variable in color, but typically covered with short greenish brown fuzz; lint about seven-eighths of an inch, percentage of lint to seed 34 to 35."

Our Improved Dixie requires only 68 bolls to make a pound of cotton, instead of 75, as indicated above for general strains.

PRICES: See Price List, inside cover.

<sup>\*</sup>Dixie is a short staple cotton. As yet we have not developed a satisfactory wilt-resistant long staple variety, but are working along this line. We have tested many so-called wilt-resistant long staple varieties, but none of them have proved to be satisfactory from a standpoint of length and quality of fibre and yield under wilt conditions.



#### OUR CORN BREEDING WORK

Our Ear-to-Row breeding of corn, while similar to the Plant-to-Row breeding of other crops in principle, varies somewhat as to method of procedure to accommodate the habits of the corn plant. Corn is naturally an open fertilized plant and will not permit of too much inbreeding without a decrease in yield. We are obliged to practice therefore a method of breeding which will eliminate, as far as possible, this inbreeding factor. Our method of detasseling the breeding rows, and of pairing the "Ear Remnants" and detasseling again in the Increase Plots, prevents all inbreeding and enables us to produce Pedigreed Strains of high yielding corn. A great deal of experimenting has been done to determine the best method of breeding corn and the one we use is considered best.



ENGRAVING FROM PHOTOGRAPH SHOWING SECTION OF DETASSELED EAR-TO-ROW BREEDING BLOCK

We first select one hundred of the best quality ears we can find from the desirable stalks and make a record of each by number from one to one hundred. A separate row is then planted from each ear one-half acre long, and then beginning with the same ear, duplicate rows are planted, making two rows from each ear. The grains are spaced accurately in the rows and cultivated and fertilized all alike, using the same fertilizer as for the general crop. Notes are made of the qualities of every row throughout the season. When the corn begins to tassel, the tassels are carefully removed, in the first set of rows planted, from the even



AN "EAR REMNANT"

(Engraved from Photo.) We test out many ears every year. The "EAR REMNANTS" of the highest yielding rows are used for further testing the following year. numbered rows, two, four, six, to one hundred, leaving the tassels on the other rows to fertilize the corn silks of all. In the second set of rows, the tassels are removed from the odd numbered rows, one, three, five, seven, to ninetynine, leaving the tassels on the even numbered rows. This gives us one row from each ear detasseled and one row from each ear with the tassels, giving us on row from each ear that has been entirely fertilized by other rows.

At harvest time we gather and weigh every row separately and record the weights of each. Notes are made as to quality and the best rows are determined, only the detasseled rows being considered and selected. After the best rows are determined, ears from these rows are selected for the next year's breeding work. The remaining best ears from these selected rows (previously selected from the desirable stalks and placed to themselves) are shelled and planted in a large increase block the following year. The "Ear Remnants." or that part of the ear left from planting the original best rows (which in the meantime have been carefully preserved) are then looked up and planted the following Spring in an isolated breeding plot, each ear being used in one section of the row as the female parent (detasseled) and in the other section as the male parent. The best corn is gathered from the detasseled section of these rows and is increased and selected year after year, until offered to the public. These new strains are tested every year in test plots with other strains and varieties and if they do not hold up in yield and quality, are discarded.



#### HANDLING SEED CORN

In order that our customers may understand exactly how we handle seed corn after it has been bred and selected in the field, we will carry them on an imaginary trip with a load of corn from the field through our warehouse until it is ready for shipment. We are now at the field. The corn has been selected, shucked and graded. We arrive at the warehouse, weigh our load and drive to the Receiving Chute from which the corn is conveyed into the building and is automatically released into any one of the big bins which has been prepared for it. It is now ready for inspection, regrading and nubbing. At the

bottom of these storage bins on the next floor is the nubbing and tipping machinery. As shown in the photograph reproduced here, a man sits at each bin, examines every ear as it comes down and if the ear is found all right in every respect for seed purposes, places it in the Nubbing Wachine shown at the left of each operator, which shells off the grains from each end of the ear. These grains are carried to the Feed Bins below, The middle sections of the ears are then dropped into a Chute that leads to the Storage Bins in the basement and the inferior ears fall with the shelled grain into the Feed Corn Bins. After the corn has passed examination and is nubbed and tipped. and conveyed to its proper bin, it then

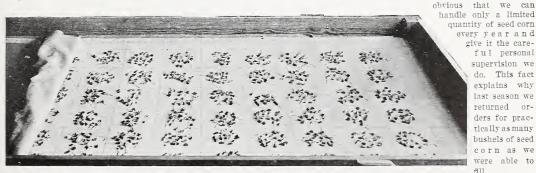


NUBBING AND SORTING SEED CORN IN WAREHOUSE

ful personal supervision we do. This fact explains why last season we returned orders for practically as many bushels of seed corn as we were able to 611

passes out through a conveyor into the Corn Sheller. From here the cobs are conveyed to the Boiler Room, where they are used as fuel, and the shelled grain is elevated to the Feeding Hopper of the cleaning and grading machinery. The corn then goes through our large grader and cleaner, where all the light, faulty, irregular and broken seeds and all trash are removed.

Six grades of product are made by this machine. The lowest is entirely discarded as trash. The next four are used as different grades of feed corn. Only the sixth grade, which contains only the heavy, mature, plump grains, is used for seed purposes. The seed corn is then carried by elevators to the third story bins, and from there the corn is fed into automatic scales, where it is weighed, sacked, tagged and sampled. A card is then placed in every bag on which is printed a description of the seed and information about the best method for growing the crop, and our guarantee of pedigree, purity and vitality of the seed. The bags are then sewed up and stored away until we have made germination tests of the samples. If any sample fails to germinate properly, that lot of seed is discarded for seed purposes and is thrown out with the feed corn. In no case will we ship out seed corn which does not test above 95 per cent. in germination. It is only by this accurate and comprehensive method that we are able to furnish seed corn which is worthy of our trade-mark and guarantee. It is very



GERMINATION TABLE SHOWING SPROUTING CORN

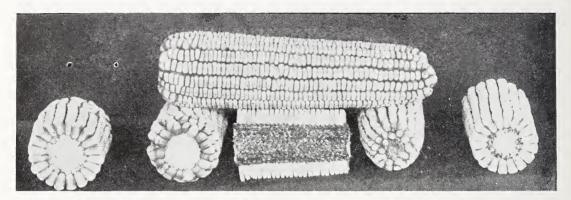
Each Square Contains Grains Taken From one Lot of Seed Corn to be Shipped.



A guarantee of perfection as far as can be perfect stands behind this trade-mark.

#### COKER'S PEDIGREED WILLIAMSON CORN

Williamson Corn is one of the oldest varieties of Southern corns planted in South Carolina. For many generations it was bred by field selection by Mr. Williamson (the father of Mr. McIver Williamson, of corn fame). In 1906 we began breeding this variety by planting an ear-to-row test from a number of apparently fine ears of Williamson corn. Ear E-1 came from a stalk which made two big weevil free ears weighing twenty-five ounces. It proved to be one of the highest yielders in an ear-to-row test and we therefore increased the strain in a breeding block. For the past nine years we have been breeding this corn by field selection of plants and the plant-to-row method, increasing the ears true to type year by year until we raised sufficient quantity to offer for sale.



EARS OF OUR WILLIAMSON CORN. (From actual Photograph)

Note Depth of Grain and Well Filled Ends

**DESCRIPTION.** The color of the grain is light amber with white cap. The grains are hard and deep. The cob is red and has on the ear eighteen to twenty-two rows of grains. It shells out eighty-seven pounds corn to one hundred in ear. Shuck fits tight and fully protects the ear. Average height of ear on stalk four to four and a half feet.

HIGHLY RESISTANT TO WEEVILS. One of the most valuable features of any corn is its resistance to weevils. Most of the small eared prolific varieties and many of the large eared corns offered for sale in the South are so badly attacked by weevils after warm weather begins that they are hardly fit for man or beast. Our E-1 strain of Williamson corn, by careful breeding, has been brought to a high state of weevil resistance and while it is not entirely immune to weevils, it is more resistant than any other variety we know of.

SINGLE EARED. Planted one foot apart in six-foot rows by the Williamson plan, this corn usually makes one well filled ear to the stalk and in some cases two ears. A corn which makes a small number of ears and at the same time a large yield is the most valuable one to the farmer. It costs less to gather, shuck, shell and handle at every point. What you want is the largest amount of sound, weevil-free shelled corn per acre, of high feeding value, rather than a great number of small ears.

YIELD. In accurate tests for the past six years, our Williamson corn has stood at or next to the top every year except one, in yield of shelled corn per acre. Other varieties make two or three times the number of ears, but less actual shell corn, and the nearest competitors in yield have fallen far below the Williamson in quality.

FODDER NOT PULLED. One of the very best features of our corn is that we allow it to mature normally on the stalk without pulling the fodder or cutting down the plant. Thus all the seed are fully matured and vital. We have conducted accurate tests which show that seed from rows on which the fodder has been pulled at regular fodder-pulling time produced seventeen per cent. less in yield as against seed of the same variety from adjoining rows upon which the fodder had been left to dry upon the stalk. Much of the seed corn offered for sale in the South has been subjected to the destructive practice of fodder pulling, thereby lowering its vitality and productiveness. (Write for our special bulletin on fodder pulling.)

USE WILLIAMSON METHOD. Against early planting and early fertilizing, the Williamson method has averaged over twenty per cent. more yield in an accurately conducted four years' test on our farm. If you don't know what this method is. send for our circular fully describing it.

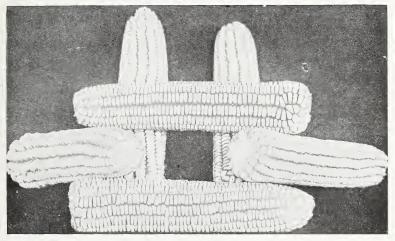
PRICES. One peck, \$1.50; one-half bushel, \$2.75; one bushel, \$5.00. Ten bushels and above at \$4.50.

United States Department of Agriculture, Bulletin No. 229, says: "The swindling practice of advertising and selling as well bred seed, a corn that has received no careful breeding is more common that the breeding of productive strains, and has caused many who have been imposed upon to discredit the merits of truly good seed corn. It is unwise to buy seed from parties whose method of corn breeding is unknown and whose truthfulness is not assured, and it is equally unwise to purchase in large quantity seed of a strain of corn that is not known to be adapted to the section in which it is to be planted."

# 

#### OTHER VARIETIES OF SEED CORN

In addition to our breeding work with Williamson Corn we have for several years conducted extensive variety tests with practically all of the principal varieties of Southern corns. The results of these tests thus far have determined our selection of an improved strain of Mariboro Prolific and Garrick, in addition to our Pedigreed Williamson. In every case we have started with seed of the best strain of each variety obtainable and have bred it. We do not believe that a better corn of the varieties we offer can be obtained elsewhere in the South.



#### Coker's Improved Marlboro Prolific

Produces stalks of medium size and height, with ears at medium height from ground. It will produce two good ears to the stalk on good land. The grains are white to cream in color on white cobs. It is a medium hard corn and matures earlier than any of the single ear varieties. It is one of the heaviest yielding Prolific Corns that we have ever found and makes an excellent grade of meal. The seed we offer is from our own breeding blocks and is descended from a Pedigreed strain of this variety. This seed is pure bred, field selected, from nubbed ears, graded, and tested for germination Fodder not pulled No. better seed of this variety can be obtained in the South.

PRICES: See below.

#### COKER'S IMPROVED SEED BLOOD

This trademark represents years of scientific experiments and thousands of dollars spent toward the perfection of better seed.

#### Coker's Improved Garrick

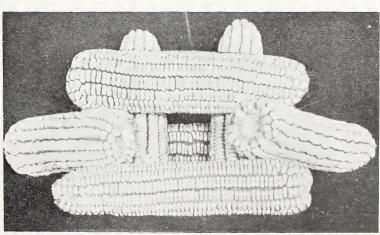
Garrick is a pure white corn of a prolific nature, usually making two good ears to the stalk. Medium size ears and stalk. It is very similar to Marlboro Prolific and is supprosed by breeders to be descended from the Marlboro. The grain is rather soft and therefore does not withstand weevils as well as the more flinty varieties. The seed we offer was grown from our own select stock and originally descended from the best strain of this variety we have found. This seed is pure bred, field selected, nubbed, graded and tested for high germination. Fodder not pulled. This variety of corn is one of the

heaviest yielding of Southern varieties. PRICES: Coker's Improved Marlboro Prollific or Coker's Improved Garrick. One peck, \$1.25; one-half bushel, \$2.25; one bushel, \$4.00; ten bushels and above, at \$3.75.

#### Our Prices

Our prices for seed corn are substantially higher than former prices. We have found that it is impossible for us to devote the time and care in breeding, selecting, grading, nubbing, testing for germination and close personal supervision at every point, at the prices formerly charged. It was either a question of lowering quality or increasing the price, and we never lower quality.

We have discontinued selling seed corn in the ear. Practically all our regular customers prefer the shelled corn, which we have nubbed, tipped and graded, rather than go to the trouble and expense of doing this work themselves. Until there is a larger demand for ear corn, we will sell only shelled seed corn.



EARS OF GARRICK CORN
(Engraved from Photograph)



#### VELVET BEANS

"Velvet Beans are rampant-growing leguminous annuals, making vines 20 to 75 feet in length, according to variety and conditions. They grow well on soils too light and sandy for most other legumes and produce an immense yield of forage, which is excellent feed for cattle and hogs. They also make a very good hay if cut soon after the first flowers appear, but the vines are so long and tangled that they are difficult to harvest. Velvet beans are excellent for newly cleared lands, as the growth is so rapid and dense that it smothers out the grass and brings the soil into a cultivable condition better than any other crop. They also have great value for green manuring and as a restorative for soil needing nitrogen and humus. Like other legumes, velvet beans draw nitrogen from the air, the proportion of the nitrogen contained in the plants being about the same as in cowpeas, and as the total yield is much greater, the total amount of the nitrogen and humus added to the soil is correspondingly larger. A crop of three tons will add as much nitrogen to the soil as will a ton of cottonseed meal, while the amount of humus will be three times as great."—From a Government Bulletin.

"Clemson College, S. C.—With the steady and rapid increase in the acreage planted in Velvet Beans in this State, there are many inquiries for information regarding this crop. The Velvet Bean has been grown in Florida for over 40 years, butfirst only as an ornamental plant. As soon as its value as a forage and soil improving crop became known, experiments were made to compare its value with the better known leguminous crops, peanuts and cowpeas. As a forage crop, for grazing hogs and cattle, it will probably outrank the cowpea in the coastal areas of this State. The farmers at present are not as familiar with it as they are with cowpeas and peanuts, but no doubt once they have made a test with Velvet Beans the acreage will be increased. To improve our sandy soils the Velvet Bean has no equal.

"With the advance of the boll weevil, the farmer will necessarily be forced to turn to soil building and forage crops in order that he may be able to feed the additional stock which must necessarily take the place of much of the cotton now grown. After proper drainage, vegetable matter is the most important thing in building up our soils. The leguminous crops, owing to their nitrogen gathering properties, are the most valuable for supplying humus to the soils. The Velvet Bean, owing to the enormous amount of growth, will outrank all other legumes in supplying this needed vegetable matter. In addition to its value as a soil builder, it is an excellent forage crop. The seed can be ground into meal, grinding the seed in the pod, just as corn is ground on the cob. This makes an excellent feed for all kinds of stock. Velvet Bean seed will be high next spring. Buy your seed now while they are cheap, and hold them over until planting time."—From the "Weekly News Notes" of South Carolina Experiment Station.

Velvet Beans should not be planted until the ground is warm enough to cause them to germinate promptly. The germ is very weak and unless the soil is warm they will rot. They should be planted about three inches deep. The usual method of planting the Hundred Day Speckled Velvet Beans is to plant between eight foot corn rows, every three feet, one bean to the hill. This requires about a half peck to the acre. When planted this way the vines cover the ground and climb up the corn stalks. The stalks and vines make a most palatable feeding crop for stock. The later varieties are often planted between corn hills, after the corn is about two feet high. The principal value of the Velvet Bean is for winter grazing. It is usual to allow the crop to grow until killed by frost, after which it is grazed through the winter, as the vines and leaves decay so slowly that they retain their palatability a long time. Many growers of Velvet Beans claim that one bushel is worth more in feeding value than two bushels of corn or one and one-half bushels of cowpeas. Velvet Beans are worth by weight about one-third as much as cotton seed meal for feeding milk cows. The hay is equal to cowpea hay in feeding value.

#### Hundred Day Early Speckled Velvet Beans

This is a new variety and the earliest maturing of all. Will mature seed over the entire South, requiring from ninety days in Southern Alabama to a hundred and fifty in Northern Virginia. Not as rank a grower as the other varieties, but makes heavy yield in beans. In many cases as much as 40 to 50 and in some cases much greater number of bushels per acre. These beans should be planted in large quantities throughout the Carolinas and Georgia this year. Seed required, one-half peck to the acre. Our seed not grown by us.

PRICES: Quart, postpaid, 25 cents. Not prepaid, quart, 15 cents; peck, 75 cents. For bushel prices, see Price List, inside cover.

#### Osceola Velvet Beans

Data from our experiments with Osceola Velvet Beans is not complete at the time this catalogue goes to

press, and we are therefore unable to give our own results with this variety.

The pods of Osceola Velvet Beans grow in large clusters and both pod and beans are larger than the Early Speckled variety. Planters in other sections claim approximitely the same maturity for both Early Speckled and Osceola, but out tests seem to show that the Osceola matures a few days later. The Osceola bean is easier to pick, and it does not have the same tendency to sting the hands. From the apparent results of our tests, we urge our customers to plant at least a part of their velvet bean acreage in this variety.

PRICES: Quart, postpaid, 40 cents. Not prepaid, quart, 20 cents; peck, \$1.00. For bushel prices, see Price List, inside cover.

March 16th.

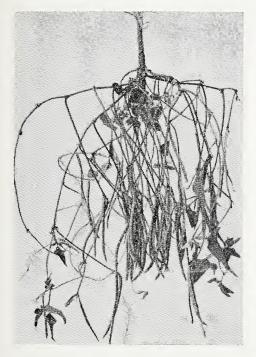
L. G. G.

Columbia, S. C.—I wish you would please duplicate my order of last year for seed corn. I want to same amount and of the same quality of your Pedigreed seed. The results I obtained this year with this seed corn were excellent, the yield being in the neighborhood of 65 bushels to the acre.



#### **COWPEAS**

"The cowpea is a strong growing annual legume, varying in form and habit of growth with the variety, soil, moisture and cultural conditions. It has long occupied an important place in Southern agriculture, being grown extensively for forage and green manure. As a green-manure crop the cowpea not only greatly increases the supply of humus and nitrogen in the soil, but improves the mechanical condition of the soil. The feeding value of the cowpea has long been recognized, as it has been used for all kinds of stock in the cowpea region. Cowpeas for hay production are very advantageously grown in mixture with sorghums, soy beans, or Sudan Grass. When grown with sorghum or corn in cultivated rows, an excellent ensilage, easily handled, is obtained. As a pasture plant the cowpea is especially valuable, for with the proper selection of varieties, grazing can be had from early summer until late fall. The cowpea can be profitably grown in rotation with other crops."



#### IRON WARREN PLANT

### Coker's Improved Groit (Whipporwill X New Era)

This is a cross between the Whippoorwill and the New Era varieties made by the government several years ago and is usually known by the name Groit. It is superior to both the Whippoorwill and New Era, making a larger growth, and fruits more heavily. Leaves persist after pods are mature. Well adapted for forage and seed production. This seed is quite similar to the Whippoorwill, but has chocolate markings in addition to the blue specks. Our stock of these seed was bred to pedigree from a single plant selection grown from seed furnished us by the Department of Agriculture and has been upbred in yield. This is the best general purpose pea we have yet found—and we test every year all of the leading varieties of field peas.

PRICES: See Price List, inside cover.

#### Coker's Pedigreed Iron Warren

This variety is a cross between the Iron (a wilt resistant pea) and Warren's New Hybrid (a very productive bush pea), which was made on our own farms in 1910. It is a very quick growing pea, makes a very heavy production of peas and average vine. It will keep well in the field. The seed are large and dark clay colored. We recommend this variety for planting in corn and in rows for seed production. It is the heaviest yielder we know of. It also makes a good variety for hog pasture. This pea has shown strong resistance to wilt, but on our present data we would not advise using it on cotton wilt lands.

PRICES: See Price List, inside cover.

#### Soy or Soja Beans

The Soy Bean is one of the most valuable leguminous crops for planting in the South. It is used ordinarily in the place of the cowpea and in many respects is superior. As a hay crop it is comparable to Alfalfa in feeding value. It also is a good pasture plant for hogs and makes excellent ensilage with corn. It can also be used

for green manure, greatly increasing the supply of nitrogen in the soil. The use of the seed or meal as a substitute for cotton seed meal in feeding ration has give excellent results. It makes a high yield of seed and is easy to grow and harvest. It makes an erect plant, matures practically all the seed at the same time and is more resistant to unfavorable weather conditions, either of rain or drought, than cowpeas. Well prepared soil is necessary for Soy Beans. The seed should not be planted too deep and should be lightly covered with loose soil. Soy Beans require inoculation, although most of the soils around the upper cotton belt are more or less naturally inoculated. Soy Beans may be grown either in cultivated rows or broadcasted, depending on the purpose for which they are grown. For seed or hay production, drill in rows two and a half to four feet apart, about one-half bushel to the acre. Cultivate at least three times. For soiling or green manure sow broadcast one bushel to one and one-half to the acre. In rotation Soy Beans are adapted to practically the same place as cowpeas. A combination of Soy Beans and cowpeas makes a very satisfactory hay, the beans holding the vines off of the ground. A half-bushel of beans to a bushel of peas is the best combination of seed. Soy Beans can be sown any time after frost, from early spring until mid-summer. In general, the later varieties should be used and planted about the same time as corn. It is usually possible to secure two crops by planting the early varieties early in the season. (The above data is based on the United States Department of Agriculture bulletin and not on our own experience. Farmers wishing to investigate Soy Beans more fully should write to the Department of Agriculture for bulletins on the subject.)

#### Mammoth Yellow

The Mammoth Yellow variety is the most largely grown in the South. It makes larger yields both of forage and seed than the other varieties. It usually grows from three to five feet high.

PRICES: See Price List, inside cover.



#### COKER'S PEDIGREED AMBER SORGHUM

Amber Sorghum as ordinarily known is a rather small growing sorghum with scanty foliage and open, sprangly heads. Coker's Pedigreed Amber is very different, having heavy foliage and very large cluster heads. It is not surpassed in seed production by any other variety in the South. It is much sweeter than the old Amber types and is very tender and juicy. It produces a very small stem, so that it is especially suitable for use as a hay crop. When

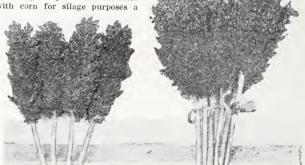
sown thick it will make a tremendous yield of hay of fine quality that is relished by every kind of live stock. It also makes a splendid green forage crop and is most often used for that purpose. If sown in alternate rows with corn for silage purposes a much heavier yield will be obtained than from corn

alone. This is a common practice in parts of the South. It is a very early variety, producing large, heavy seed heads, heavy foliage and small, very sweet stalks. Recommended especially for hay and green forage purposes.

PRICES: See Price List, inside cover.

"Your Pedigreed Amber Sorghum is the very best Amber I have ever used. It made from four to six tons of forage per acre. If the South had been using this Sorghum for stock feed for the last twenty years it would have saved the farmers thousands of dollars."—Bamberg, S. C.

"I think your Pedigreed Amber Sorghum is the best I have ever planted. It makes more hog feed than anything I have ever tried. I expect to plant twelve acres in it next year."—Cope, S. C.



SUMAC—Heads of Our Pedigreed Sorghums—AMBER (Engraved from Photograph)

#### COKER'S PEDIGREED SUMAC SORGHUM

Sumac Sorghum is especially adapted for use as a silage or green forage crop. It grows much larger than the Amber variety, producing coarse stalks, and consequently is not so well adapted for use as a hay crop. This variety is known to be one of the heaviest yielders of forage and is grown extensively in many parts of the South, often as a silage crop planted in alternate rows with corn. It is also very often used as a green forage crop to be cut and fed green to stock. Our Pedigreed strain of this variety has been bred for production and we recommend it especially for silage and green forage purposes. It is a medium late variety, producing very close cluster heads, tremendous forage yields and large stalks.

PRICES: See Price List, inside cover. This seed carries our trade-mark. It is carefully graded, tested for germination and sacked in new cotton bags.

"Your Pedigreed Sumac Sorghum is excellent for silage. I made fifteen tons of silage to the acre and believe twenty tons could be made."—Dr. G. Y. H., South Carolina.

"Your Pedigreed Sumac is a very fine variety for Sorghum syrup. On light land it makes as pretty syrup as ribbon cane. I consider it one of the best varieties of sorghum for stock and man."—S. C.



FIELD OF COKER'S PEDIGREED AMBER SORGHUM (Engraved from Photograph)

Midnight, Miss.—I will plant my entire cotton acreage this year in your Webber No. 49, about 325 acres. In this Delta Section, your cotton produced fine and is as quick as any of the very short varieties.

Feb. 24th.

W. H. E., Sr.

Midnight, Miss.—We are more than pleased with the yield, staple and etc., of your Webber No. 49 cotton seed. The thick, tough hull of the boll certainly gets by the weevil, and especially if 1-3 to 1-2 grown.

W. H. E., Jr.



#### Pearl or Cat Tail Millet

One of the heaviest yielding forage plants for the South. Makes a nutritious feed for continuous green cutting. Can be fed either green or cured and is relished by all kinds of stock. One planting furnishes two or three cuttings. It is a tropical plant and should not be sown until spring or early summer. Continues growing until frost. Drill in three-foot rows, ten pounds to the acre. If broadcast use twenty-five pounds or more.

PRICES: Postpaid, packet, 10 cents; pound, 30 cents. Not postpaid, pound, 24 cents. For quantity prices

see Price List, inside cover. (Seed not grown by us.)

#### German Millet

Makes large yields of good quality feed. Seed grown in millet section of Tennessee. Sow one bushel to the acre and cut while in bloom. Sow after warm weather, in May, June and July. Matures in six and eight weeks after sowing. With Whippoorwill X New Era Peas, makes excellent combination hay crop.

PRICES: For quantity prices, see Price List, inside cover.

#### Sudan Grass

Probably the most valuable hay and forage crop that has been introduced in recent years. Closely resembles Johnson Grass but does not have the objectionable root system. Yields two to three cuttings of highly nutritious hay. Yields in the South from two to four tons per acre. Seems to be more resistant to drought than other hay crops. Grows well in mixture with the legumes, furnishing an upright plant for vines to cling on. The favorable results from tests on our Experimental Farms enables us to recommend Sudan Grass as hay crop for this section. The seed we offer is free from mixture of Johnson Grass or other foreign seed. It is best grade certified seed. We warn farmers against planting Sudan Grass seed of unknown origin or purity, as it is liable to contain Johnson Grass seed, which is very similar in appearance, or may come from a strain which has hybridized with Sorghum. Drill in rows about eighteen inches or two feet apart about five pounds to the acre, or broadcast twenty to twentyfive pounds per acre.

PRICES: Per pound, postpaid, 35 cents. For quantity prices, see Price List, inside cover.

#### Bermuda Grass

Bermuda Grass makes a most valuable perennial pasture grass for the South. Is an excellent soil builder. Sow in March or April, broad cast about six or eight pounds to the acre about one-half inch deep. Bermuda Grass and Burr Clover make an excellent combination and an a'll the year permanent pasture. No reseeding of either crop necessary. Seed not grown by us.

PRICES: Per pound, postpaid, 50 cents. For quantity prices, see Price List, inside cover.

#### Japan Clover (Lespedeza)

Japan Clover as a grazing crop has a distinct place in Southern Agriculture. It grows on worn out lands, where other crops fail and furnishes a nutritious permanent pasture. Can be sown broadcast without special preparation. Thickens rapidly and re-seeds itself without attention. Grows heaviest after first year. Sow in March or April about ten pounds to the acre. Our seed Texas grown.

PRICES: Per pound, postpaid, 45 cents. For quantity prices, see Price List, inside cover.

#### Dwarf Essex Rape

Rape makes an excellent grazing crop for cattle, hogs and sheep and splendid green crop for chickens. Sow in Fall, August to October, or in Spring, as early as possible, not later than April. Should be planted in good soil, such as would grow rutabagas and cabbages. Sow broadcast six to eight pounds per acre or in drills in thirty-inch rows, three or four pounds to the acre. (Seed imported.)

PRICES: Pound, postpaid, 25 cents. For quantity prices, see Price List, inside cover.

#### Coker's Pedigreed Dwarf Okra

This okra is descended from one dwarf plant which was found in a patch of ordinary okra in 1912. It was strikingly different from any other plant, the joints being very short and the pods very large. Several flowers were hand-pollinated (selfed) and the seed from the resulting pods have been grown and selected since that time. It produces well, makes fine, large pods and very little bush as compared with ordinary okra. We have tested this okra and feel that it deserves a place in every garden. We have only a few seed for sale. They were raised on our own breding plots.

PRICES: Postpaid, packet, 5 cents; ounce, 10 cents; one-quarter pound, 25 cents; pound 75 cents. Not

prepaid, pound, 65 cents.



#### WASHINGTON ASPARAGUS

Washington Asparagus is the first result of a plant breeding campaign for the eradication of asparagus rust as a factor in the commercial production of asparagus. The work was begun in 1906 by the United States Department of Agriculture, associated with the Massachusetts Experiment Station. This work has been carried out at Concord, Mass., by the Bureau of Plant Industry, but of late the work has been extended to other sections. This pedigree breeding work has produced several plants whose progeny are practically free from rust. One male of this lot whose value was discovered in 1910 has been used as the male parent in making pedigree tests of select female plants since that time. The best of the seedlings produced in these tests has been planted at Concord and elsewhere in isolated fields to secure seed for commercial tests. The best of these plants were progeny tested at Hartsville in 1915 and the select seedlings grown in this test were used to plant a guard field around the Government seed field on one of our farms. Each plant used in this guard field was personally selected by the Bureau's expert for vigor and uniformity. In addition to its own value as a seed producing field, this asparagus is made more valuable by being alongside the pedigreed strains being used by the Government, and as crossing takes place between the plants, the blood of these new strains as yet undistributed to the asparagus growers is blended with that of the guard rows around it. It is the seed from these rows that we offer for sale.

By the selection of only the best plants in our field we are giving customers the benefit of a triple selection. Only the best roots were planted in the field, only the best plants from these roots were used for seed production and only the best recleaned seed from these plants is sold to the grower.

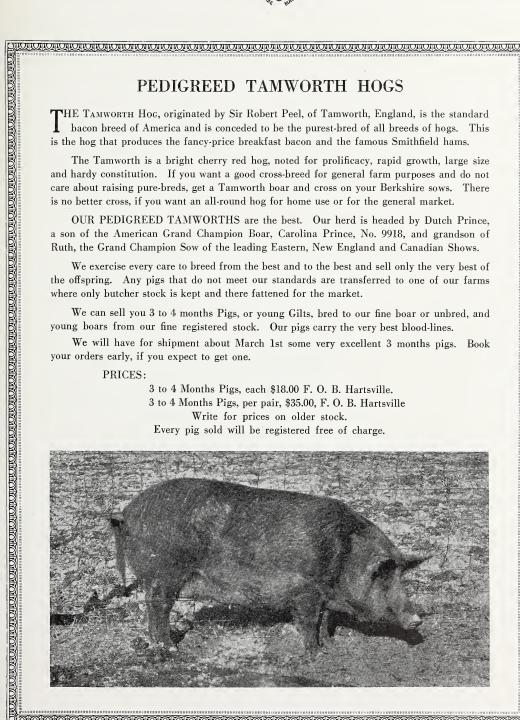
Washington Asparagus is as far as possible an extremely resistant, vigorous and high yielding strain of giant asparagus. The plants represented in its pedigree of the last three generations are the best found in a tenyear search among millions of plants tested. By best, we mean the ones that have produced offspring, uniform rust resistant, high yielding, large sized, of rapid growth, which indicates tenderness. A more uniform market type has not been seen among other so-called varieties that were in any degree rust resistant. While certain growers and seedsmen have advanced the claims of Argentenil, Palmetto or Reading Giant, none of them has been found sufficiently uniform in good characters to justify their adoption as the basis of breeding work. From all of them certain good types of female plants have been taken after pedigree test for rust resistance and yield as suitable plants to combine with the plant "Washington," a male from a lot of very good roots secured in 1906 under the name "New American." Just where this strain originated we are now unable to discover, but it is probably related to Sutton's Reading Giant. Anyway, by taking the best we have now the "Washington" Asparagus is a truly American strain, free from the blight of the rust of Central Europe.

PRICES: Postpaid, packet, 25c; ounce, 40c; ¼-lb.,\$1.25; ½-lb., \$2.25; lb., \$4.00; 5 lbs. and above at \$3.50.



BREEDING BLOCKS AND EXPERIMENTAL PLOTS OF GRAIN ON PERIGREED SEED FARMS

<u>OUTONO INTERIORITATION INTERIORITATION DE PRINCIPO INTERIORITATION INTERIORIT</u>





# Coker's Special "Clipper" Seed Cleaner and Grader

Removes all light, immature and worthless seed and all trash and foreign matter—by double screens and vertical air blast method. The most effective seed grader on the market. ¶DOES EFFECTIVE WORK with all Southern seeds, including Wheat, Oats, Rye, Barley, Cotton, Corn, Peas, Sorghum, Soy Beans, Burr Clover, Kaffir Corn, Vetch, Milo Maize, Alfalfa, Millet, Rape, Crimson Clover, Onion Seed, etc. ¶All "Coker's Special Clippers" are fitted with a special assortment of screens for Southern seeds, and furnished complete with TWELVE SCREENS.

#### Coker's Improved No. 22-B Clipper Seed Cleaner

A recently perfected improved model specially designed for cleaning and grading cotton seed. Also cleans and grades other seeds, grain and beans. The most perfect model seed cleaner for the Southern farmer.

NEW FEATURES: Force feed roller, adjustable, to insure even feed of cotton seed; clutch throwout for feed roller; double grooves for changing elevation of lower screen.

Simple in Construction.
Easy to Operate.
No Complicated Parts.
No Extras.
Will Last Indefinitely.
Operates by Hand or Power.

COKER'S IMPROVED No. 22-B CLIPPER CLEANER, equipped with 12 screens, crank pulley for hand operation and power pulley for operation by engine.COMPLETE, net cash, f. o. b. Hartsville, S. C...... \$43.50

#### OTHER MODELS

GRADER

MP 22B

GENERALSOUTHERN

PEDIGRED SED GE

A.T. FERRELL & CO.

A.T. FERRELL & CO.

SEED

CLEANER

AND

OUR GUARANTEE: Try out any of the above machines for thirty days and if not satisfactory in every respect, ship it back and get your money.

In tests conducted by the Department of Agriculture, (Bulletin No. 285), cotton seed properly graded, made an increased yield of 103 pounds seed cotton per acre in one test and an increase of 88% pounds in another test against the same seed not graded. These results speak for themselves.

For further information, write for our special bulletin describing "Coker's Special Clipper" Cleaners.

### Pedigreed Seed Company, Hartsville, S. C.

GENERAL SOUTHERN AGENTS

For North and South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana

#### READ CAREFULLY BEFORE ORDERING

#### PRICES.

Our prices are for cash with order. If remittance is not sent with order, it means a delay until we can write you and receive the amount. Customers who have established their responsibility may have shipments made with sight draft attached to bill of lading.

We make no special prices or reductions. We believe our seeds are worth what we charge for them, to one customer the same as another. In case of general changes in price (owing to market fluctuations) orders received after the change will be filled at the new prices.

Remittance may be made by personal check, bank check, money order, cash or stamps. We are not responsible for your order until it reaches us.

#### SHIPMENTS.

Our excellent facilities enable us to fill practically every order the same day it is received. We exercise the same care with small orders as with large ones, but make a small additional proportional charge for the extra expense of handling, sacking, etc. This expense is included in the prices quoted.

On seed quoted Postpald, we pay all delivery charges. But all prices marked not prepaid, and all bulk prices, including pecks, half-bushels, bushels and above, DO NOT INCLUDE transportation charges, and such shipments will be sent by express or freight collect, unless such charges are added to the prices quoted.

#### HOW TO HAVE SEED SHIPPED.

Shipments of twenty pounds and less to points within the second zone from Hartsville (within 150 miles, including all points in South Carolina and Central Southern part of North Carolina) are usually cheapest by parcel post. The amount of postage must always be added to the price quoted.

Small shipments to a distance are usually cheapest by corporate in the corporate of the corporate in the co

Small shipments to a distance are usually cheapest by express. If you are not sure about cheapest way to have shipment made, send us sufficient amount to pay charges and we will send cheapest way and return to you any balance after paying charges.

Large shipments are always cheapest by freight. If your station is a prepay freight station, the amount of freight charges must be added to your remittance.

#### WHEN SEED ARRIVE.

Our seed are put up in substantial bags and boxes and delivered to the rallroads in good order. When seed arrive in bad order, do not accept the shipment or pay the freight until your station agent makes a statement to that effect on your receipted freight bill. Send this freight bill to us and we will make claim and collect it from the railroad company for you.

make claim and collect it from the railroad company for you.

You have ten days in which to examine and test our seeds in any way you may see fit. If they are not perfectly satisfactory in every way, return them to us in the original packages at our expense, and we will refund your money. However, we will not refund money for seed that have been in a customer's hands for more than ten days, nor entertain any claim after that time.

#### OUR GUARANTEE AND RESPONSIBILITY.

Attached to every bag of seed we ship is a card on which is printed the percentage germination and purity of that particular lot of seed. In no case do we ship seed that does not measure up to the highest standards.

Our PEDIGREED Seeds are bred by the plant-to-row method on our own breeding farms and we guarantee them true to name. Our IMPROVED Seeds are bred by general or mass selection and are also guaranteed true to name. Our GENERAL Seeds (those not otherwise classified as PEDIGREED or IMPROVED) are not bred by us, but otherwise are as good quality as can be obtained. On GENERAL Seeds, however, we give no warranty, expressed or implied, as to description, quality or productiveness.

EXAMINE OUR SEEDS when you receive them and test them in any way you see fit. If for any reason they are not satisfactory, they may be returned to us within ten days after they are received, in the original package, AT OUR EXPENSE, and WE WILL REFUND ENTIRE PURCHASE PRICE. We waive all responsibility for seeds which have been in a customer's hands more than ten days, as the vitality of any seed may be lessened or killed after leaving our warehouse, by subjection to moisture, heat, brine, chemicals, etc. Under no circumstances will we be responsible for the germination of seed after they are planted, whether within ten days or not, as there are many reasons for imperfect germination of planted seeds other than their vitality. In no case do we accept responsibility for more than the purchase price of seed. If purchaser does not accept seed under this condition, they are to be returned at once.

#### OUR GROWTH IS NO MYSTERY.

The large and increasing demand and wide popularity of Coker's Pedigreed Seeds is no mystery. Its explanation is simple to those who know our seeds, our methods and our men. Briefly, it is: We make no claims which our seeds do not prove; we give the best quality seeds that careful and expert breeding can produce; we exercise a personal care in handling our seeds at every point, recleaning and separating out all except the strong and vital; we sell only such seed as we can guarantee for high germination and purity, and give actual percentage figures of every lot; we stand absolutely behind every seed we sell with our fifteen years' reputation as breeders, with a substantial commercial backing and with a money-back guarantee; we give prompt and efficient service in our shipping department; and finally, we never allow any complaint, no matter what its nature, to go without a prompt investigation and, if well founded, a satisfactory settlement with the claimant. These are the methods and policies under which our work has grown from a small, one-man local enterprise, to one that now reaches every Southern State.

### PEDIGREED SEED COMPANY

DAVID R. COKER, President,
HARTSVILLE, SOUTH CAROLINA.

